

SELECTIVE SHIELD/MATERIAL FLOW MECHANISM

ABSTRACT

5 An apparatus and method for plating a workpiece. The apparatus comprises, generally, an anode, a cathode, and a selective anode shield/material flow assembly. In use, both the anode and the cathode are immersed in a solution, and the cathode is used to support the workpiece. During an  
10 electroplating process, the anode and the cathode generate an electric field emanating from the anode towards the cathode, to generate a corresponding current to deposit an electroplating material on the workpiece. The selective shield/material flow assembly is located between the anode and the cathode, and forms a multitude of adjustable  
15 openings. These opening have sizes that are adjustable during the electroplating process for selectively and controllably adjusting the amount of electric flux passing through the selective shield/material flow assembly and the distribution of the electroplating material on the  
20 workpiece. The selective shield/material flow assembly can also be used with an electroless plating system. At least one selective shield material flow mechanism is used in a selective shield material flow assembly.

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